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HEALTH

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Edited by

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SEX-HYGIENE.

II.

(Continued from P. 216 Vol. X. No. 10).

Before dealing with the subject of 'Venereal Diseases' as promised in our editorial of last month, we beg leave to acquaint our readers with a certain sex phenomenon, universally experienced by boys after puberty, and which, in many cases, perturbs their minds and gives them cause for alarm and, that is, nocturnal emission. Nocturnal emission is the result of a reflex action of the seminal vesicles which pour out their contents under some psychical or physical stimulus. A boy may have been reading some love story during the day or may have witnessed an obscene drama or cinema show before going to bed, and the sexual organs, being then in a state of tense excitement and under spell of an 'erotic dream', emit their contents. Hence the name 'Wet Dreams' applied to this condition. There is nothing unnatural about this, if the person is normally healthy and has not already, by self-abuse or other artificial means, lost all control over his sex-organs. Prevention consists in keeping the mind pure and free from wicked thoughts and using the leisure hours in reading religious books and other books of morals. Sometimes, the cause may be purely physical. The seminal vesicles are placed between the rectum and bladder and when they are full and exert pressure on these vesicles, the contents of the latter are thrown out. Constipation and an overfull bladder being the pre-disposing causes to nocturnal emission, steps should be taken to clear the bowels and empty the bladder before going to bed. Good exercise, light meals, free ventilation,

and lying on the sides are also recommended, as effective preventive measures. Involuntary emissions are therefore the result of a diseased state of the mind and body and when the root cause is removed and health is restored, they stop of their own accord.

Voluntary emissions occur during (1) legal intercourse (2) self-abuse and (3) promiscuous intercourse.

Voluntary emissions during legal intercourse and that, too, indulged in moderation, are healthy and useful. The others are bloodsapping and tend to bring on diseases and premature death. Voluntary emissions during masturbation bring on involuntary nocturnal emissions for some time even after cessation of the voluntary act. "If one who has been accustomed to the habit of masturbation suddenly discontinues the habit he is almost certain to experience nocturnal losses for a time. His system has been accustomed to the forced secretion of an unusually large amount of vital fluid because of its repeated discharge, and continuing the secretion, its stimulation takes this form until the organism is adjusted to the normal course of life. Those who have been married or who have in any other way been accustomed to frequent indulgence upon being deprived of the accustomed outlet, are likewise subject to nocturnal losses for a time". This malady which goes by the name of spermatorrhea can be cured only by stopping masturbation and over-indulgence, keeping the genitals clean, and mind free from all amorous thoughts. Verily, has our ancient law giver declared that the following constitute the violation of continence or Brahmacharya :—

"Dwelling upon impure thoughts, frequent recollection of one's immoral acts, mental indulgence in sexual vices, libidinous conversations, flirtation, casting lustful glances, talk in seclusion, immoral intention, attempting to translate that intention into practice and finally by succeeding in the translation of the immoral intention into act". Let our youngsters search their hearts and say if they have not transgressed in one or more of the above ways and thus broken their vow of Brahmacharya!

Promiscuous intercourse leads one to contract venereal diseases and the two most common and dreaded of the venereal diseases are syphilis and gonorrhoea. Syphilis is one of the most ancient diseases of mankind, and is perhaps as old as the world itself. These diseases are caused by specific germs and unless they are completely destroyed in both the male and the female the infection cannot be stamped out. Nearly 50% of the population in Indian cities can be said to have this disease. The disastrous effects of syphilis and gonorrhoea are too well-known to be enumerated. They wholly outrank the large majority of infections such as small-pox, measles, cholera, typhoid and malaria. They are a puzzle to the modern sanitarians and social workers. We will not be in the least exaggerating when we say that syphilis is one of the chief causes of insanity; that a great many of the high-blood pressure cases are the result of syphilis: that 95% of all abortions and still-births are due to syphilis ; that a great many of the crippled and deformed individuals we see masquarading before the public are the products of syphilitic parents; that most diseases of women are due to syphilis or gonorrhoea or both; that 50% of all cases of sterility are caused by these; that 80% of all blindness, especially in children

can be traced to gonorrhoea and finally but not least, that the most potent cause of the undermining of the vitality of every human individual and therefore of the state is either gonorrhoea or syphilis or both. If only the people should realize the seriousness of these two diseases, not to one or two individuals, nor to one or two nations but to the entire humanity, and know that they are both preventable,then they should spare no effort to stamp them out by all means which human ingenuity and scientific skill can devise.

Anti-venereal work in India can be dealt with under three main headings:—medical and hygienic measures, legal enactments and last but not the least, education and increasing public opinion. The first essential from a medical point of view is that prompt and scientific diagnosis and treatment be made available to every infected person. Hospitals instead of turning away cases of gonorrhoea and syphilis as they had done in the past, should provide treatment for them just as they do for the other infectious diseases. The treatment must be cheap if not altogether free. Strictest secrecy must be maintained with regard to the nature of the disease. Another point to be emphasized is the need for suppressing the sale of patent medicines for venereal diseases. In England, the venereal disease Act of 1917 made it illegal for any one except a duly qulified medical man to treat any person for venereal diseases or prescribe any remedies for such diseases or to give any advice in connection with the treatment. It was also made illegal to issue public notices or announcements or advertisements to treat venereal diseases by an unqualified man.

Legal enactments to check venereal diseases are three :—viz. (1) Regulation of prostitution, compulsory notification and compulsory treatment. The Brothels Act that has come into force in Madras is a dead letter and we find the utter helplessness of Law and Police in checking the spread of venereal diseases as there are many loopholes left for offenders to escape detection or punishment. In most European countries, including Denmark, Hungary, Sweden, Belgium, Netherlands and Poland, regulation of prostitution or the system of maintaining licensed houses has been abolished as being useless and of little value. What is wanted, therefore, is not regulation of prostitution but change of public opinion.

Compulsory notification will be ineffective, Syphilis and gonorrhoea are diseases in which active treatment—nearly two years in the case of the former—is the best form of prevention. People will be reluctant to notify themselves in view of the stigma attached to venereal diseases. Medical practitioners will be reluctant to notify these diseases, as thereafter, the patients will have recourse to quacks who promise secrecy rather than go to qualified medical practitioners who will betray them.

Compulsory treatment will also be valueless and is both impracticable and unjust.

Education and propaganda, therefore are the only two useful avenues of anti-venereal work. The rank and file of the citizenry should be given social hygiene truths by lectures, publicity, motion picture films and also by wholesale distribution of pamphlets and thus disseminating knowledge regarding the medical as well as the moral importance of

chastity, the existence and mode, of infection of venereal diseases, the means of medical prevention should a moral lapse occur and lastly the importance of immediate and effective treatment should the disease be acquired.

But what really more important is the imparting of 'true' education. The child is the father of the man and this difficult task of imparting knowledge regarding sex hygiene should therefore be begun very early. This sex education of boys and girls should really be begun in the home by the parents. They must frankly answer questions put to them on sex topics. This early training should be continued in their later education by including in their course of study lessons in physiology—a physiology which does not ignore the reproductive system and yet does not isolate sex. As professor J. A. Thompson said "it is the empty chamber that the devil enters" and every one interested in social welfare—the youth, the parent, the school master, the school medical inspector, the private medical practitioner, the hospital doctor, the sanitarian, health propagandist and the State should all combine and pull together in eradicating veneral diseases from amongst our midst.

HOW IS CONSUMPTION CAUSED ?*

BY

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The answer to this question is easy and yet difficult. Ever since Robert Koch discovered the tuberculosis germ, we know that this germ is recognized as the root cause of the disease, but unlike the other bacterial diseases we now know that the bacillus of tuberculosis cannot take root and produce the disease in a person whose constitution has been properly built up. In the case of diseases like cholera, small pox, plague, typhoid fever and dysentery the infecting germ produces the disease within a few hours or days of its entering the human body and it matters very little whether the constitution of the person is well built or poor. The incubation period that is, the time between the entry of the germ into the body and the onset of the symptoms of the disease, is short in the case of those diseases, whereas in the case of tuberculosis the incubation period is several weeks or months or even years. In other words the body has little or no time to develop its natural resistance against those germs where the incubation period is short, whereas in the case of tuberculosis there is ample time and opportunity for the body to develop its natural resisting power against the germs of tuberculosis, if favourable conditions are given to the body to develop such resistance.

We know as a matter of daily experience that if a person recovers from his

* Being a copy of Radio lectures delivered in March and April last and specially sent to 'Health' for publication.

attack of typhoid fever or smallpox, which he does as a result of the body developing the natural resistance by the attack of the disease, the person cannot get the disease again as a rule in later life. We know again that if instead of getting the actual disease, if the person be inoculated with the germs in a dead form i.e., by the injection of the prophylactic vaccine, he can also develop the required degree of resistance against the disease. In nature therefore when a person gets naturally inoculated or infected with the germs of consumption and the body has sufficient time and power to develop the resistance against the germ which has entered it, the person becomes immune against tuberculosis or consumption. If, on the other hand, the body is not sufficiently nourished or sufficiently looked after, the disease itself results instead of the resistance and the person becomes the victim of tuberculosis.

The causation of tuberclosis or consumption therefore depends on two factors namely first, the infection with the living germ of the disease and second, the failure of the development of natural resistance after the infection. This failure may be due to a combination of causes amongst which the most important are insufficient nourishment or impure quality of food, insufficient and impure air for breathing, insufficient ventilation and sunlight in the case of purdah females, insufficient rest to the body after work or the undue strain of overwork, insanitary surroundings, excessive drain on the system due to early and frequent pregnancies, child births or lactation and a host of other causes which conduce to insufficient natural resistance of the body against the disease. That is why the poor and the ignorant are particularly liable to tuberculosis. The poor have not got the means to provide themselves with the quality and quantity of food essential to the body to enable it to resist the infection and to live under the necessary standards of comfort and convenience required for healthy living. The ignorant may have the means to live healthy lives, but have not got the knowledge whereby they could utilize their resources to the best advantage and fortify their bodies against the infection with the germ of tuberculosis. This accounts for the well known fact that whereas the acute infectious diseases can attack persons with strong bodies, a chronic disease like tuberculosis will not attack a person whose body has been fortified by good living. In a few words tuberculosis is a disease due to faulty nutrition in which bacterial infection plays quite a minor part, whilst in cholera, plague and small pox the infection plays the chief part, the body though strong playing a comparatively minor part. In other words in the case of consumption the soil is more important as the causative factor, whilst the seed plays an unimportant part, the reverse being the case in the other bacterial diseases commonly prevalent amongst us. This is why tuberculosis has been called a disease of faulty nutrition wherein infection plays a minor part whilst the acute diseases like typhoid fever, cholera, plague are termed the truly infectious diseases where the germ cause plays the more important part and the body and its nutrition a comparatively unimportant role.

Tuberculosis being prevalent in all climates, countries and communities, the infection with the germ is universally present in all communites, but communities will no doubt differ a great deal as regards the prevalence of the disease if

the conditions of living and the general bodily stamina of the respective communities differ. In a country where the economic and social conditions are good, the food of the masses is well balanced and sufficient and the living conditions are healthy, tuberculosis will be much less prevalent than in a country where economic and social conditions are poor, food is defective or insufficient and living conditions are far below the ideal. In England, America and Australia where economic conditions are good, living conditions healthy and the food and resources ample tuberculosis is naturally much less prevalent than in countries like India, and China where economic and food conditions are bad, resources of the country poor and living conditions far below the standard. In one word a C_3 population like ours must suffer far more from the ravages of consumption than A_1 population like that of the United States, Great Britain and Australia. Whilst the mortality from the disease is less than one per thousand in these countries, that in India is probably 3 to 4 per 1000.

Tuberculosis is therefore a disease of poverty, malnutrition and ignorance, in which infection with the germ plays quite a minor part.

INDIAN DAILY HYGIENIC LIFE

BY

DR. J. ROY,

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(Continued from page. 226, Vol X, No. 10).

Milk, is a perfect food. It contains all the proximate principles of food. For infants, mother's milk is the best. There are varieties of preparations obtained from milk, generally sold in the baazar namely, skimmed milk, butter milk, cheese, butter, ghee and sweetmeats, etc. But it is regrettable that milk and its preparations are almost always adulterated with unwholesome things when nutritional value is lost. When adulterated things are contaminated with infectious materials, dangerous epidemics occur.

Liver, is one of the most valuable of all the animal foods available for use by man. It is a great store keeper of carbohydrates in the body and vitamins A,B.C.D. Liver contains a substance which stimulates the formation of red cells and as such, it is used extensively in the treatment of anaemia of all kinds.

Eggs, next to milk and liver, are most valuable of all animal foods. They are very easily digestible except when they are hard boiled.

Fish, eggs, liver, meat, kidney, brain and other organs and cheese are all "acid forming foods". These must be balanced by mixing plenty of vegetables and fruits in the *diet of non-vegetarians* so that the blood and the body fluids may remain in the right reaction—neither too acid nor too alkaline.

For the vegetarians, milled-rice or milled atta should be avoided and hand-made things are recommended. They should take with their cereal grains, milk products, butter, ghee, dals (pulses) as peas, beans, etc. nuts, seeds, leafy

vegetables, tuber and root vegetables and fruits of all edible kinds to make up the food deficiencies, otherwise, health is likely to be affected.

The growing children require more protein and more food than adults in proportion to the body weight. A properly fed and well nourished body has extraordinary power of resistance to disease, whereas a badly balanced diet deficient in vital elements as in general use, is the direct cause of many diseases and is most potent cause of ill-health and debility and most common predisposing cause of all other diseases. It should be noted that all the forms of diet should always be free from any contamination through dust and flies, and the food should always be kept in clean condition and in covered vessels.

Mc. Carrison instructs that the following are the right kind of foods for the children—"1. Any whole cereal grains or mixture of cereal grains. 2. plenty of milk products, curds, buttermilk, butter, ghee, 3. Sprouted pulses, 4. Eggs, livers, meat or fish occasionally. 5. Tuber and root vegetables. 6. Abundance of green leafy vegetables. 7. Fruits. These are the things with which appetite should be satisfied. Whatever else is eaten does not greatly matter so long as it is simple, clean and easily digestible, well prepared, and so long as the proper balance of the food in proteins, fats, carbohydrates, mineral salts and vitamins is maintained. In this connection the following rules should also be remembered.—1. Nothing out of a tin is as good as fresh food. 2. No highly purified food is as good as the same food as provided by nature. 3. No preserved food is as good as fresh food. 4. It is wholly unnecessary to eat any tinned, highly purified or prepared food, if fresh food can be got. 5. Be sparing in the use of salt, sugar or sweets. 6. Clean all leafy vegetables carefully in boiled water before they are eaten raw and be sure that the source from which they come is clean. Chew them well when eating them. 7. Boil all milk before use. 8. Use butter milk or sour milk when procurable in good state. 9. Drink plenty of pure water. 10. Eat only at regular hours. 11. Chew the food thoroughly before swallowing it."

The above right kind of foods are also applicable to expectant women. The best way of getting vitamin is as nature provides them in suitable combination with all other elements rather than vitamin containing preparations now-a-days made by manufacturing chemists and sold at expensive rates. The health of an individual may be affected by taking foods as follows,-1. Over-feeding or under-feeding. 2. Poisonous substances derived from metals, shell fish, milk-foods, meat or fish, poisonous substances in food as a result of fermentation or from unknown causes. 3. Parasitic or T. B. infections of flesh or milk. 4. Infected food specially milk by virus of Diphtheria, enteric fever, Cholera, dysentery or scarlet fever. etc. 5. Some accessories of diet e.g. alcohol, coffee. and tea if injudiciously used may be injurious. Hence in selecting food for our daily diet we should only select such things that have sufficient nutritional value and not possessing any injurious substances.

Besides the hygenic condition in our food for daily life, consideration of other things namely,-cleanliness, clothings, exercise, sleep, and habits are essential factors.

Cleanliness.—is the most important condition for healthful growth. Cleanliness with regard to food we eat, the air we breath, and water we drink is of

imperative necessity. Skin requires careful attention for its thorough cleaning, as, much of the work of kidney and lung are performed by it. Skin forms a part of the respiratory organs. The sweat glands and the sebaceous glands in the skin secrete respectively sweat and sebum. Sweat contains water, urea, some acid, sulphur and sodium chloride. Sweat and sebum both contain fatty substances in addition, which keep the skin and hair moist and smooth. The most superficial layer of cells of epidermis is shed in the form of scales i.e. epithelial debris of "scurf" which becomes mixed with sweat and sebum and render the skin dirty. Accumulation of dirts blocks the pores of the skin and interferes with the natural function of the skin. This

The hot foot bath is effective in breaking up a beginning cold

affects health to a great degree by throwing an extra work on the kidney. Moreover, unpleasant smell arises from the decomposition of the dirts accumulated in the armpit and like other places. Soap water and alkaline water are necessary to remove these dirts. The Indian fashion of smearing and rubbing the whole body with some bland oils e.g. mustard, oil or cocoanut before bath has an immense value by keeping the body cool, making skin soft, and supple, helping certain dirts dissolved and removed, facilitating the massaging of the body, when the whole system is stimulated including the internal organs, as by this, circulation is quickened, and muscles exercised giving an exhilarating and refreshing feeling.

Bath is necessary not only for cleaning purposes, but also it has beneficial action on the skin and other internal organs. The Indians perfer cold bath. The Europeans just arrived in the tropical country from the cold country, if they should take cold bath, might suffer from

some sort of illness and hence they prefer warm bath. Bathing in the morning is preferable. The skin being a delicate organ, the temperature of the bath should be such as can be borne without discomfort and the temperature of the water should always depend upon the power of reaction i.e. readjustment of the cutaneous circulation without giving rise to any internal congestion, and a feeling of comfort, vigour and greater capacity for mental and physical work. When such reaction is delayed and sensation of dullness of the head and abdomen, faintness, tightness of the chest, is felt it must be understood that such bath is unsuited and must be discontinued. Other personal cleanliness should also be attended to.

Mouth should be cleansed 2 or 3 times a day. The teeth should be thoroughly cleansed and brushed. Any food material lodged between the teeth should be removed. In pyorrhoea cases special attention should be paid to the gum and teeth regarding cleanliness and Tinc. Iodine painted at least once a day upon the gums. Green vegetables and lime juice are advised to be taken daily till recovery. If there be any carious tooth this should be stopped. Water used for mouth wash should be pure.

Tongue.—should be kept always clean by a tongue cleaner and washed.

Nostrils—should be kept clean every day with pure water to prevent infections of many diseases getting entrance into the system through the nostrils.

Nails.—When long should be cut short and kept clean otherwise dirts accumulate there.

Hair—requires daily brush and to be combed to keep them in clean state.

Shaving—One should always practise shaving himself and avoid barber's razor, as, this carries infection from one person to another. Money spent for self-shaving is a profitable investment.

Towels.—Should be periodically cleansed and a pair of towels should be kept, one for the use of the head and other for the body as the infection of prickly heat occurring in the head might spread on the other parts of the body if the same towel be used for both head and body.

Bed-rooms, kitchen, houses and their surroundings should be kept clean. Special attention should be paid for the efficient works of the conservancy system there.

FOOT AND MOUTH DISEASE

BY

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Komaratchi.

This is a disease which occurs in epidemic form among cattle. The disease is characterised by ulcerative inflammation of the mouth, teats and foot, profuse salivation and extreme debility increasing from day to day. In the legs the ulcers get infected with by the flies sitting upon them and maggots begin to appear in the wound. It is no wonder the disease spreads in a lightning-like way, as the indiscriminate way in which our cattle are cared for in the

villages helps to spread the infection. The infection is said to be due to some ultra-microscopic organisms.

As there is a superstition that this disease is analagous to small-pox in man no treatment is given to the animals for fear of increasing the anger of Goddess. The disease is called "*Komari*" (கோமாரி) in Tamil. The animals are taken to rivers or drinking water ponds where they are tied in knee deep water. The object of this treatment probably is the washing of the wounds in the legs in the current of water and preventing further infection with the flies. Alas! this instead of doing benefit to the cattle only tends to spread the disease to other uninfected animals which happen to drink the water. Not stopping with this, the disease also spreads to the mankind probably by contact with infected animals, infected water and infected milk. In man the symptoms are as described in Osler's Principles and Practice of Medicine. "Fever, digestive troubles and cruptions in the lips and mouth".

During time of epidemic to prevent the disease from spreading to mankind it is better to use boiled milk and avoid contact with infected animals. Infected cattle should at once be isolated and not allowed to mingle with other cattle nor should be sent to the common grazing ground. Nor should they be made to stand indiscriminately in the water sources of the villages infecting them forming a menace at once to cattle and mankind. The mouth of the animals should be frequently washed with alum lotion (i.e.) water containing a small proportion of alum. In the legs the ulcers should be well cleaned with soap and water and dressed and bandaged after applying some mild antiseptics. Wherever possible advice should be sought from a veterinary doctor for the efficient treatment of the infected animals.

RABIES.

(CANINE MADNESS.)

By the Honry. Sany. Adviser, Public Health, Trivandrum.

Nature of the disease.

Rabies is a disease primarily of dogs. secondarily of man. It also occurs often in animals such as wolves, jackals and hyaenas. The main sources of infection for man are rabid dogs and rabid jackals. Among dogs in India, the disease is relatively quite common. When a rabid dog bites a man he is afflicted by the terrible and fatal disease called Hydrophobia, unless it is prevented by timely and proper treatment.

Cause and mode of infection.

The disease is caused by an unknown germ or virus which is communicated to animals and man by the saliva of infected animals. This germ or virus enters the body through a break or opening in the surface of the skin, usually from a bite or scratch. The mere licking of the bare hand or face by a rabid animal may result in infection, should there be even a slight scratch or abrasion. The virus travels

along the nerves to the central nervous system and slowly produces a poison that has a special action on the brain and spinal cord.

Incubation period.

A variable time elapses between the introduction of the virus and the appearance of the symptoms. In dogs this period lasts as a rule for 3 to 6 weeks, but may extend to 4 or 5 months and in a very few instances to over 6 months. In man the incubation period ordinarily is from 20 to 60 days, about 40 days on the average. The exact time depends upon a number of factors such as the origin and nature of the virus, its virulence and amount, the site of injury and the character of the wound. The time is apt to be shorter in children as well as when the bites are deep and on the face. Bites on exposed surfaces such as the face, head and hands act more dangerously than wounds inflicted through the clothing. The clothing may wipe and absorb the infected saliva from the teeth and little or none may enter the wound.

Symptoms.

(A) In Dogs

When a dog develops rabies it may show the following symptoms :—

(1) Sudden change in disposition,
(2) Unusual nervousness or irritability.
(3) Tendency to leave home.
(4) Change in voice.
(5) Refusal to eat.
(6) Tendency to snab or bite without provocation.
(7) Weakness or paralysis of the legs or lower jaw.

(B) In Man.

In man the disease becomes rapidly fatal from 2 to 5 days. The symptoms are not identical in all cases. Frequently there is an introductory period of one or two days during which the patient complains of headache, is restless and cannot sleep, and experiences unnatural sensations. In some cases there is pain and swelling in the old wound. Difficulty in swallowing is observed and a disinclination to take food or even liquid occurs. These symptoms rapidly become more pronounced. The difficulty in swallowing increases until severe throat spasm appears, followed by gradually developing spasms of the muscles of the thorax, trunk and extremities. The patient may be delirious or conscious, during the latter state showing anxiety and worry. The flow of saliva is markedly increased and thirst is persistent, but attempts to drink water and even the sight of it provokes spasms. The sufferer may spring from the bed, cry, rave, and manifest other symptoms of the "raging madness". Following the stage of excitement comes the "calm madness" with paralysis of the affected muscles and great loss of strength. In fact, the "calm madness", with depression of spirits and stupor, is the most common form of rabies in human subjects. Towards the close, unconsciousness gradually supervenes, the heart's action becomes more and more enfeebled and death occurs.

Prevention.

The prevention of rabies consists of the following three measures :—

1. Treatment of the wound.
2. Preventive inoculation.
3. Control of the diseases in dogs.

1. Treatment of the wound.

When a person has been bitten by a rabid dog, he should at once seek the

help of a physician and have the wound washed, dried and treated with pure carbolic acid or strong nitric acid. This should touch every part of the wound to its full depth so as to destroy as much of the poison as possible. After cauterisation an anti-septic dressing should be applied to prevent septic infection of the cauterised tissues.

2. PREVENTIVE INOCULATION.

It is very essential that no time should be lost in taking antirabic vaccination. The treatment is useless once the symptoms have developed. Anti-rabic inoculations are given once daily for 14 days in the abdominal wall. During treatment patients are not inconvenienced to any extent and no danger to health need be apprehended therefrom. The patients should however avoid alcohol, chills, fatigue and excessive exercises.

Free anti-rabic treatment is available to all at the Bacteriological Laboratory, Trivandrum.

3. CONTROL OF DISEASE IN DOGS.

If an unknown dog or jackal bites you without any provocation, it is almost certainly mad and suffering from rabies. In case it is a known domestic dog tie it up for ten days. If he has rabies he will die within this period; if not infected he will remain well. When rabid dogs are killed and examined they show diagnostic signs (Negri bodies) in the brain and spinal cord. Even in mere suspected cases there is no harm in the patient taking treatment.

The disease may be controlled, even exterminated by intelligent measures directed towards dogs. It is mainly the stray dog that keeps rabies alive. By a systematic muzzling of dogs the disease could be practically eradicated as was done in England. Other measures adopted to control the dog question are (a) the destruction of all ownerless dogs (b) holding the owners legally responsible for the damage caused by their dogs. Due care on the part of the dog-owning public will help very much towards the reduction of this great danger.

VEGETARIANISM IN INDIA

BY

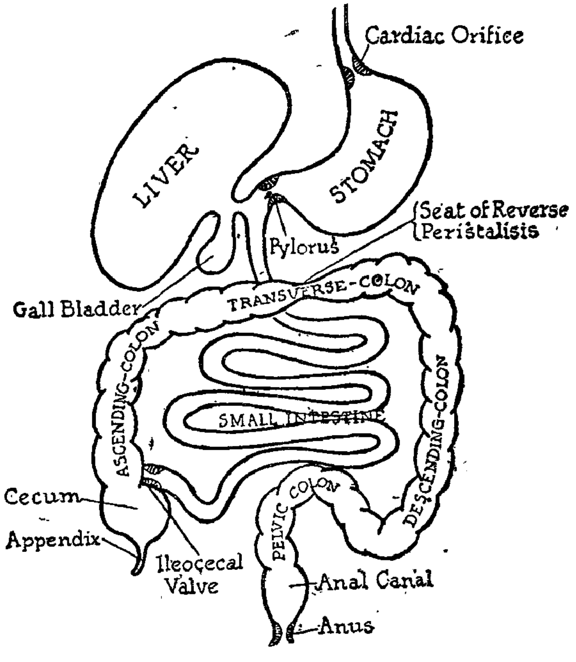
T. S. IYER.

I should like in this brief article to indicate how far vegetarianism and healthful living were practised in India in the old days and how far they are deviated from at the present time.

India is the home of vegetarianism, and is the only country in the world where vegetarianism is practised as a creed among the Hindus. It is based fundamentally on two principles, namely: (1) that as it is believed that all animals have souls, like human beings, it is sinful to kill them; (2) that animal food is impure and the eating of it besides causing ill-health and disease develops the baser instincts in man and rouses animal passions. The Brahmins of India generally and more particularly those of Southern and Western India, and United Provinces, and all Jains are

strict vegetarians, i.e., they do not eat even eggs, as they contain the embryo of life. The Brahmins of Bengal, except a certain sect called Baishnabs, who are strict vegetarians, eat fish, while certain others also eat meat of animals offered as sacrifices in the name of God. The Brahmins of some provinces in the northwest of India who have been living amidst other communities who are meat eaters, also eat meat. Hindus other than Brahmins eat meat but sparingly, as meat is more costly in India than vegetables, which are quite cheap and are available everywhere in all seasons of the year.

Meat-eating became much more common in India after the advent of western "civilization" on account of the increase in the number of meat-



The Digestive System is impaired by improper food, overfeeding and irregular feed.

eaters among the European residents, and the drink evil has also followed in its train. While drink was prevalent among few people in the old days, and they were satisfied with country liquor drawn from the cocoanut and palmyra palm which was cheap, the present-day civilization offers inducements for the use of western liquors which are more attractive and more costly. Coffee and tea drinking also became regular habits of the people and on a large scale during recent years, after European planters had begun to grow coffee and tea over extensive areas on the hills. Smoking of cigars and cigarets also became much more common and fashionable.

I shall state first how vegetarian food was prescribed and what kinds of food

were generally taken in India in the early days and how they differ according to the present-day habits of the people. According to the old Hindu system of medicine (which included dietetics), vegetables were classified according to their action on the human body, namely: (1) those which caused heat, (2) those which stimulated the production of bile, (3) those which produced wind, and (4) those which stimulated the organs of secretion, such as the respiratory organs. People were forbidden to eat those vegetables which had a tendency to produce the very effects which they wished to avoid. The Hindu system of medicine always insisted on a rigorous diet for the successful treatment of diseases, and prohibited the use of certain classes of foods which were considered inimical to the action of particular medicines which might be prescribed at the time. In some classes of complaints, such as constipation and piles, some green vegetables were prescribed as food which had specific action on the parts of the body affected and helped to remove the causes of the complaint. It was, therefore, believed that diseases could be avoided by a judicious regulation of one's food coupled with a liberal use of green vegetables which were believed to have particular food values and special affinity for particular parts of the body. Thus, a free use of vegetables was considered a vital necessity for the maintenance of normal health, and has been of considerable utility both in affording nourishment as well as in helping to ward off diseases. The old grandmothers were generally acquainted with the utility of particular vegetables, greens and herbs, and were always able to prescribe them for the members of the family, so that consultation with the village physician was scarcely necessary for ordinary ailments.

The grains in common use in India are rice, wheat, Indian corn, ragi and millet. Rice is generally eaten in places which are hot (such as Bengal, Madras, Bombay, Central Provinces, Central India and United Provinces), A combination of wheat and rice in places which are generally temperate, and wheat in cold places. In the plateau of Kashmir which has an equable climate and is called the Switzerland of Asia, rice is grown and eaten by the people. Poor people who cannot afford to buy wheat eat it in combination with corn or eat corn alone. The other grains, such as ragi and millet, are grown in the southern parts of the country and are generally eaten by the poorer classes as they are cheap. Lentils of different kinds which contain a lot of proteins and carbohydrates are grown in the country and are eaten in combination with the cereals.

Another article whose utility became known to western countries only recently but which has been in use in India for generations is butter-milk, or yogurt milk. This is widely used all over India, almost with every meal in combination with rice by those who eat rice and by others as a separate drink. In some parts of the country this was used as a morning drink by some people before the introduction of coffee and tea.

Nuts, such as peanuts, walnuts, almonds and pistachios, are available and are used by the people. Peanuts, being cheap, are used by the poorer classes. In some places almond paste boiled in milk is taken as a morning beverage in place of coffee and tea.

Cocoanut is another article which is largely available and made use of by the people in several ways. The water

of the tender cocoanut is taken freely during summer and is very much relished.

Among fruits, the banana is the most common. Different varieties of the same can be had all over the country, and are widely used by all classes of people. Other fruits, such as oranges, mangoes, melons of different kinds, guavas, apples, peaches and pears are all available and are used by the people.

Potatoes, sweet potatoes and a large variety of root vegetables are also in use. The ordinary daily menu of a vegetarian family which ordinarily consists of two principal meals comprised the following: Boiled rice, together with wheat cakes prepared from wheat flour, one legume boiled, one or two vegetables or greens, clarified butter or ghee, buttermilk or milk. To add taste to the legume or the vegetable, lemon juice, preserved mango pulp and some cayenne pepper (raw or fried) are added.

The poorer classes, especially the laborers, cook their food only once a day, generally in the evening, and divide it over the two meals, baking the fresh food in the evening and leaving over the remainder for use the next morning. Where rice is eaten, the remainder of the rice is soaked overnight in water, and the rice eaten along with the water the next morning. Poorer people who cannot afford to buy any legumes are satisfied with a vegetable only, and use some vegetable oil in their food because they cannot buy butter. They generally maintain goats and use goats' milk where they require milk for themselves or for their children, as this is cheaper than the maintenance of cows.

When corn is used as food, it is either eaten after being baked in the fire, or is converted into flour, out of which cakes are prepared. Corn flour is also mixed along with wheat flour in the preparation of cakes. Millet or ragi is used either in the form of cakes or as gruel.

Raw vegetables are not eaten daily as as a rule, but when this is done occasionally, cucumbers, onions, artichokes, unripe mangoes, and green chillies are taken either by themselves or in the form of a mixture of any of these as salads, with a dressing of lemon juice. Tomatoes are beginning to be grown in the country and are coming into general use as their food value is beginning to be appreciated. Lettuce is not generally known, and is only used by people who have travelled in Western countries. Sometimes the lentils are soaked in water and eaten raw, either with or without lemon juice.

A few words in the matter of the personal habits of the people will not be out of place in this connection. In the villages people pay particular attention to the calls of nature. They take care to see that the bowels are evacuated the first thing in the morning, They do this in the open fields far away from their houses, and squat on the gound for the purpose, which facilitates the evacuation on account of the pressure exerted on the lower abdomen in the process. They wash themselves clean after attending to the call. The use of toilet paper by Western nations is abhorrent to the Hindu mind, as they consider it an unclean and unhealthful habit. I was told by Dr. Kellogg a story he heard from an American missionary who resided for a long time in India, and who mentioned about the feelings of the Hindus in the matter of the use of toilet paper by the Western nations. Dr. Kellogg was impressed by the soundness of the idea and so has

introduced an extra water spout just behind the seat in the water closets in use in the Battle Creek Sanitorium, whereby those who use the closets could utilize the water from the spouts for washing themselves. I did not understand the use of the extra spout in the closet until Dr. Kellogg explained it to me.

The Indians pay particular attention to their teeth and use the twigs or shoots of certain trees, which they convert into a brush for the purpose of cleaning their teeth. The sap in these twigs, or shoots, has astringent properties and helps the removal of tartar and other bad matter from the teeth. They spend well nigh half an hour in cleaning their teeth. These twigs or shoots can be had everywhere and even in cities, and are largely used by all people except those who have come under the influence of western education, are always in a hurry, and prefer to use the much-advertised tooth brushes and tooth pastes. The brushes prepared out of the twigs and shoots are fresh, clean, cheap and healthful while the brushes prepared from hair cannot remain clean in spite of all precautions; and the tooth pastes prepared from chemicals have strong action on the enamel of the teeth and wear them out much sooner. We hear of too many cases of pyorrhra in these days which are primarily caused by unhealthful living and bad stomachs, but which the doctors believe can be cured by the use of the tooth brush and pastes, while no attention is paid to the real cause—the bad stomach produced by unhealthful living.

Another method which the ancients adopted for keeping their teeth strong was to prepare certain edible articles which were hard and required hard biting and good chewing before they would dissolve in the saliva of the mouth. This gave a very good exercise to the teeth, and it was believed kept them hard and strong. During the present time people want soft foods which they can swallow in mouthfuls and gulp down in a hurry, in order to rush to their work.

The Hindus bathed themselves every day either in cold or warm water, according to the demands of the climate and season of the year. People living in the villages and on the banks of the rivers always have their baths in cold water in the open air where they have plenty of sunshine. In most parts of the country they rub some vegetable oil over their bodies before they had their baths. Sometimes they expose their bodies to the sun (or had sun baths) after the application of the oil. This is believed to tan the skin and harden it against all adverse influences of changing weather.

As I have already mentioned, the habits of coffee and tea drinking have become very common in all places during recent years, and coffee and tea shops have grown like mushrooms all over the country. They have grown to such a large extent that it has become extremely difficult to get fresh pure milk except for high prices, and in some places it is impossible to get milk for any consideration, and so people who want milk can get only coffee or tea, as the vendors will sell them only in that form. Children are given more coffee and tea than their systems will stand, and the coffee and tea habits are imbibed by them from their birth. The general health of the country has suffered seriously in consequence and I am afraid that the future citizens of

the country will pay the penalty if they do not mend their ways in time.

A thorough reformation in the habits of the people in the matter of eschewing all the evils of the Western "civilization" which have crept into the country and a reversion to the healthful ways of the older generation are urgently called for if the country is to prosper. The Battle Creek Idea is spreading in the United States of America and also in Europe, and as we Indians can understand and appreciate it much better than the Western nations to whom it is new, we should learn from the example set by Western nations in the matter of healthful living and unlearn all the evils which have been responsible for undermining the health of the country and increasing its poverty.—*Good Health.*

MUSIC AS A TONIC

DUCHESS OF ATHOLL AT THE PIANO

The Duchess of Atholl M. P., addressed a meeting in Edinburgh, held in connection with the conference of the International Federation of University Women, on "The Value of Music in Education." She illustrated her talk with a recital on the piano, which surprised and delighted her audience. The first piece she chose was Chopin's Ballade in F, which she took as illustration of beautiful sentiment in music. Other illustrative pieces were chosen from Sir Hubert Parry, Bach. Schuman, Beethoven (the "Appassionata" Sonata), and Brahms.

"I fly to Bach when I am troubled or depressed", she said. "Five minutes of Bach is a great tonic. Music can lift us to heights far above this earthly sphere. Music shows us the human soul, and can reach out to something infinitely greater than what we are accustomed to see and hear around us. It seems to me that music is of great value in these days of materialism and agnosticism, when attempts are even being made to eliminate religion.

"If you hear a boy whistling in the street you know there is not much the matter with him. One of the nicest things to hear is Negroes singing at their work, as I did in South Africa. Singing makes you good tempered. It is difficult if not impossible, to sing when you are angry. I cannot imagine any better way of learning to concentrate on work or learning accuracy than the study of any musical instrument, such as the piano. A boy or girl loving music and desiring to interpret it accurately must unconsciously acquire the sense of values you see illustrated in the music. Bach's music seems to me like an ideal debating society, where every one is good mannered in discussion, every one gets a fair hearing, and a conclusion is reached which is satisfactory to every one."

VENEREAL DISEASES

Syphilis and Gonorrhœa are the two principal venereal diseases. These diseases are acquired through immoral, promiscuous sexual unions. They constitute a social menace of the first magnitude. Syphilis usually begins as a tiny sore or pimple in the private parts and in a few weeks the germs of this disease multiply in enormous numbers and get into the blood circulation. It affects the skin, the internal organs and the brain. It affects not only the individual who voluntarily exposes himself to infection, but also his innocent wife and children. The disastrous and fatal effects of this disease are seen years after the original infection. It is the commonest cause of miscarriage and still-born children. Cases of mental backwardness, idiocy, fits and paralysis in children are to a large extent due to this disease being transmitted through their parents. In adults its most baneful effects develop during the active wage-earning period of man's life and render him a burden to his family and to the State. Modern treatment assures a complete cure for this disease, but the minimum period of treatment is two years.

Gonorrhœa though less obvious is a more painful disease. It begins with burning in passing urine and a white discharge. In men, it produces urinary disorders, joint troubles and sterility. In women, it produces chronic ill-health, disorders of menstruation and sterility. It affects the eyes of new-born infants. More than 25% of blindness in children is due to the ravages of this disease. The disease is most intractable to treatment, but in the early stages with prolonged painstaking treatment, cure can be assured.

HOW TO COMBAT VENEREAL DISEASES

1. By educating the young of both sexes in sex and social hygiene;
2. By broadcasting the moral and the physical value of chastity in both sexes;
3. By an intensive propaganda among the lay public about the nature and dangers of venereal diseases;
4. By inculcating into the public mind a hygienic and sanitary attitude towards these diseases;
5. By suppressing relentlessly all forms of commercialized prostitution;
6. By rescuing young girls who have been sold to this life of shame and training them to be useful wage-earning members of society;
7. By providing free, gratuitous and confidential treatment.

THE CIGARETTE HABIT.

A Doctor Discusses Its Dangers.

The cigarette habit was discussed by the Society for the Study of Inebriety. Dr. J. D. Rolleston said there had been a great increase in the cigarette habit since the War, especially among women. The cigarette differed from all other forms of tobacco smoking in nicotine content, being lower in this than in the cigar or the pipe, but it had a high proportion of carbon monoxide.

Dr. Rolleston quoted the "Lancet" for the statement that habitual cigarette smoking in any quantity was only slightly less harmful than drinking spirits between meals. It had been

computed that on the average each man and woman and child in the United States smoked 1,000 cigarettes annually.

The medical profession was not unanimous as to the part played by tobacco indulged in the causation of certain diseases, particularly those of the heart and circulatory system and especially angina pectoris. Many considered it definite as the precursor of cancer and it was notorious that if tuberculous persons smoked their deterioration was rapidly accelerated. Both smoking and the cocktail habit were specially detrimental in diabetics. The supposed antiseptic effect of tobacco smoke on the mouth and throat was largely a myth; indeed the action of nicotine on the delicate mouth and nasal mucous membranes was definitely bad.—*The Calcutta Municipal Gazette.*

STAYING THE HAND OF TIME.

Alys Bentley, a noted instructor in music, felt symptoms of growing old ten years ago. She was conscious of the appearance of rigidity in her joints. She had the idea that there were deposits of lime or acid here. As a remedy she gave up meat and substituted juicy vegetables. Carrots, string beans and spinach were her mainstays. She ate freely also of raw mixed salads, including peas, lettuce, chicory and beet roots. The dressing was merely lemon juice and olive oil. Salt and pepper she avoided. Dessert would often be raw fruit, such as orange or apple, covered with honey.

She likewise gave much attention to retaining a proper posture and to exercises for stretching the muscles. She now has the satisfaction of feeling that she has grown no older physiologically in those ten years and her friends assure her that to all outward appearances, she has not. Her experience is told in *Modern Living.—S. in Good Health.*

VALUE OF OPEN-AIR SCHOOLS.

Sir George Newman (Chief Medical Officer of the Ministry of Health and the Board of Education), opening the second open-air school erected at Birmingham, observed that there were two things which in all circumstances required due annual expenditure. One was health and the other was education. In these two subjects there was always a current, inexorable minimum of expenditure which must be incurred. It would be the greatest folly, even in our present difficult financial situation, to spend so little on health or education as to put the clock back as a nation in either department, Sir George described an open-air school as an expression and embodiment of those two irreducible minimum subjects. In an open-air school, health and education became the supreme platonic nature. Debilitated boys and girls obtained five things, namely, fresh air, food and exercise, and it was insisted that they must be clean and must rest. Those were the five cardinal tenets of the way of health

for every one of us. The open-air school system was part of a great movement going on in western civilisation for the re-interpretation of education in the very best platonic sense, which would take the whole body and personality of the child and put it into a medium in which it could grow and become what it was meant to become and what it had the capacity to become if only it was not interfered with. It was a perfectly sound educational proposition, and it was the "most paying economy of all."—*The Medical Officer.*

PRENATAL CARE *versus* CRIME

Out of thirty-eight boy convicts studied in an English prison, as reported in a recent issue of the *Christian World*, thirteen had no parents, eight had mothers, and eleven, fathers; two had been deserted by their parents, and but four had living fathers and mothers. It seems fair to conclude that the tendency to crime is largely attributable to a lack of good home influence, the unprivileged boy who is morally weak tending to drift into prison.

The point for us is that thirty of these boys were without mothers. Assuming that this lack runs in the same degree through the mass of young criminals, and also assuming that lack of prenatal care plays a large part, directly and indirectly, in the death of young mothers, we have a good clue to a possibly big crime factor that is preventable. What better argument could there be for prenatal care? The subject should be studied statistically on a large scale in our prisons, which, God knows, are crammed with vast numbers of unfortunate specimens.—*Medical Times and Long Island Medical Journal.*

APPLICATION OF HEAT

Probably no method of some treatment for the relief of pain is more commonly used than the local application of heat in the form of the hot water bottle or the electric pad. And it's good treatment; heat does relieve pain! Grandma accomplished the same result in an earlier day by use of the mustard plaster, bread and milk poultice, onion poultice, flaxseed poultice, hot stove lid, hot irons or a bag of hot corn, all of which were methods of applying heat to the part that hurt.

Theoretically, there is no difference between moist heat from a hot water bottle or dry heat from an electric pad. The electric pad would seem to be the more efficient in that the heat can be regulated and applied constantly, whereas the hot water bottle soon gives up its heat and must be renewed. But practically, moist heat in the form of the hot water bottle or hot stoupes (the application of clothes wrung out of hot water) seems to give far better results. For example, when used for the relief of menstrual pain, moist heat will relieve the pain without interfering with the menstrual function, while the electric pad will, for some unknown reason, stop the menstrual flow, which increases the pain. In cases in which heat is indicated over long periods, a combination of the two methods should be used. The hot water bottle is applied directly over the part, while the electric pad is placed over the bottle, continually replacing the heat which is radiated to the tissues from the bottle. —*Your Body.*